

WHAT IS CLAIMED IS:

1     1.     A method of analyzing the content of an incoming electronic message (IEM),  
2             the method comprising:  
3             classifying the IEM using query-based classification to select at least one  
4     category that relates to the content of the IEM; and  
5             classifying the IEM using an example-based classification algorithm to  
6     search through a set of stored previous electronic messages, each stored  
7     previous electronic message being associated with at least one of the selected  
8     categories, to identify at least one stored previous electronic message that  
9     relates to the content of the IEM.

1     2.     The method of claim 1, further comprising identifying at least one business  
2     object that is associated with the selected category.

1     3.     The method of claim 2, further comprising recommending the identified at  
2     least one business object.

1     4.     The method of claim 1, further comprising identifying at least one business  
2     object that is associated with the identified stored previous electronic message.

1     5.     The method of claim 4, further comprising recommending the identified at  
2     least one business object.

1     6.     The method of claim 1, wherein classifying the IEM using query-based  
2     classification comprises:

3       evaluating content of the IEM using pre-defined queries associated with  
4       each of a plurality of pre-defined categories in a categorization scheme; and  
5       selecting a category for which one of the pre-defined queries evaluates as  
6       true.

1       7.     The method of claim 1, wherein classifying the IEM using an example-  
2       based classification algorithm comprises:

3       comparing the IEM with the set of stored previous electronic messages; and  
4       determining which stored previous electronic messages in the set of stored  
5       previous electronic messages are most similar to the IEM.

1       8.     The method of claim 1, further comprising:

2       identifying at least one business object that is associated with the selected  
3       category; and

4       identifying at least one business object that is associated with the identified  
5       stored previous electronic message.

1       9.     The method of claim 8, further comprising recommending business  
2       objects that are associated with both the selected category and the identified  
3       stored previous electronic message.

1       10.    The method of claim 8, further comprising recommending business  
2       objects that are associated with at least one of the selected category and the  
3       identified stored previous electronic message.

1       11.    The method of claim 1, wherein the IEM is an e-mail.

1 12. The method of claim 1, wherein the IEM is received via Internet self-service.

1 13. The method of claim 1, further comprising the step of providing a  
2 recommendation based on both the selected category and the identified at least  
3 one stored previous electronic message.

1 14. The method of claim 1, wherein the example-based classification  
2 algorithm is a k-nearest neighbor algorithm.

1 15. The method of claim 1, wherein the example-based classification  
2 algorithm is a support vector machine algorithm.

1 16. A computer program product tangibly embodied in an information carrier,  
2 the computer program product containing instructions that, when executed,  
3 cause a processor to perform operations to analyze the content of an incoming  
4 electronic message (IEM), the operations comprising:

5 classify the incoming message using query-based classification to select at  
6 least one category that relates to the content of the IEM; and

7 classify the IEM using an example-based classification algorithm to search  
8 through a set of stored previous electronic messages, each stored previous  
9 electronic message being associated with at least one of the selected categories,  
10 to identify at least one stored previous electronic message that relates to the  
11 content of the IEM.

1 17. A system for responding to incoming electronic messages (IEM), the  
2 system comprising:

3           a content analysis engine that uses query-based classification to select at  
4   least one category that relates to the content of the IEM, and uses an example-  
5   based classification algorithm to search through a set of stored previous  
6   electronic messages, each stored previous electronic message being associated  
7   with at least one of the selected categories, to identify at least one stored  
8   previous electronic message that relates to the content of the IEM.